

ABSTRACT OF THE DISCLOSURE

This invention relates a series of steps to provide an economical production of a carbon based fertilizer and soil amendment made during the capture of greenhouse gases from the combustion of fossil and non fossil fuels. The invention uses biomass and other carbonaceous sources through pyrolytic conversion to gases and charcoal, to allow for the further production of co-products, such as hydrogen and ammonia. The invention also relates to the combination of hydrated ammonia, combustion flue gas exhaust, and charcoal, provide for the conversion of the charcoal into a valued added soil amendment to return essential trace minerals and plant nutrients to the soil. The ability to produce a large volume carbon co-product while removing mandated emissions and producing renewable based hydrogen provides an economic gain to a large number small and large businesses and increase the chance of achieving significant reductions in greenhouse gas emissions.